

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of:

Administration of the
North American Numbering Plan

Phase 1

CC Docket No. 92-237

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COMMENTS OF COX ENTERPRISES, INC.

Werner K. Hartenberger
J.G. Harrington
Laura H. Phillips

Its Attorneys

DOW, LOHNES & ALBERTSON
1255 23rd Street Suite 500
Washington, D.C. 20037
(202) 857-2500

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SUMMARY

The Commission should take immediate steps to reform the administration of the North American Numbering Plan. Reform is necessary to ensure that all parties with interests in telephone numbering are treated fairly and given an opportunity to participate in numbering decisions.

Current numbering practice disenfranchises most interested parties unless they are landline telephone companies. Bellcore has shown that it favors landline interests, and even ministerial tasks like NXX code assignments disfavor non-landline, non-traditional users of telephone numbers. At the same time, the current processes for setting numbering policy act to stifle the voices of parties that lack the resources of the large LECs and often policy is set without any chance for non-LECs to participate.

To respond to these problems, the Commission should create a neutral numbering administration. The new administration should give all parties with interests in numbering a fair opportunity to be heard and should have responsibility for all national and local numbering issues. Moreover, the Commission should set basic numbering policies to guide the new administration. Under the new administration, the costs of numbering should, as now, be recovered from those who cause them.

The Commission also should adopt specific numbering policies that encourage local competition. Notably, the Commission should require number portability in order to make PCS a truly competitive service and should require LECs to give PCS operators access to their numbering databases. The Commission should not merely adopt cellular policies for PCS. PCS providers should have access to any appropriate NPA code, either geographic or non-geographic, and PCS numbers must be made available in time for the prompt provision of service by PCS carriers.

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COMMENTS OF COX ENTERPRISES, INC.

Cox Enterprises, Inc. ("Cox"), by its attorneys, hereby provides its initial comments on the Commission's Notice of Inquiry ("Notice") on the administration of the North American Numbering Plan ("NANP"). Cox is a broadly diversified company, with interests in cable television, radio and television broadcasting, newspapers and automobile auctions. Cox also is a proponent of Personal Communications Services ("PCS"), experimenting in San Diego with cable-based PCS delivery. In pursuing and expanding its businesses, Cox has participated in numbering forums and sought regulatory relief to introduce an abbreviated N11 dialing format to its existing information services.

Cox's participation in consideration of numbering and related issues has led to several conclusions about how numbering issues should be decided and who should decide them. In particular, Cox believes it is crucial to reform the administration of the NANP to make it more responsive to the needs of all users of numbering resources. At the same time, there are several PCS-related numbering actions that the Commission should take directly, most notably designing numbering policies to encourage local competition and giving PCS providers access to both geographic and non-geographic numbers.

I. THE ADMINISTRATION OF TELEPHONE NUMBERING SHOULD BE PLACED IN NEUTRAL HANDS.

The most critical issues raised by the Notice are whether there should be changes in the administration of the NANP and who should guide and administer the NANP. Based on the record of the last decade, it is evident that NANP administration – both policy setting and ministerial actions – necessarily must be performed by independent, neutral entities rather than by interested parties.

A. Current Numbering Administration Does Not Reflect the Important Interests of Many Parties in Numbering Issues.

One of the salient features of the Commission's regulatory process is that every party with an interest in an issue has a full and fair opportunity to have its views considered. Just as that opportunity is vital to regulatory decisions, it is vital to what heretofore have been private decisions about telephone numbering policy.

Unfortunately, current numbering plan administration does not give all parties a fair chance to have their needs considered.

The most obvious way in which NANP administration does not reflect the interests of all parties is that it is governed entirely by Bellcore, an affiliate of the RBOCs. Thus, policies are set by a body with no connection whatsoever to independent wireless communications carriers, competitive access providers, information services providers or even independent LECs. Even if NANP administration does not consciously favor its owners, the views of NANP personnel are inevitably affected by their experiences as employees of Bellcore.

The effects of NANP administration's RBOC affiliation have been evident in a variety of contexts, all of which have been related to the Commission previously.^{1/} For instance, following a request from the Commission prompted by cellular industry concerns, Bellcore prepared draft guidelines for NXX code assignment late last year, supposedly after consulting with all segments of the industry. Nevertheless, those guidelines contained none of the proposals made by cellular carriers and failed even to acknowledge those proposals. Several cellular carriers complained about this omission, but to no apparent effect. Similarly, although Bellcore contacted carrier representatives in preparing its proposal for the future of the telephone numbering plan, and even consulted with a group of futurists, the list of parties consulted (which was included in the proposal) did not include a single independent information services provider, CAP or non-LEC PCS experimenter.^{2/}

^{1/} Of course, Bellcore repeatedly has informed the Commission that NANP administration acts independently, regardless of its ownership. Even if that is true, the many incidents of favoring traditional telephone interests over wireless and enhanced service provider interests suggest that Bellcore-affiliated administration of numbering does not adequately consider and respond to the needs of non-telephone company parties.

^{2/} In the Commission's N11 proceeding, Bellcore has disputed both of these claims. Reply Comments of Bellcore, CC Docket 92-102, at 3-4. In the case of the NXX guidelines, Bellcore asserted that cellular carriers had been consulted and that language was included to address cellular concerns. The fact remains, however, that the very carriers who were consulted were the ones that complained because their comments were not reflected in the initial proposal. In the case of the proposal on the future of the NANP, Bellcore asserted that its involvement in discussions on a single issue at the Information Industry Liaison Committee (the "IILC") was sufficient to inform it of all potential ESP concerns for the future of the numbering plan. Bellcore also complained that Cox had not participated in industry numbering matters, a particularly ironic claim since Cox already had submitted comments to Bellcore on both the NXX guidelines and the future of the numbering plan at the time Bellcore filed its reply comments.

Cox's own recent experiences confirm that, at best, NANP administration is indifferent to the needs of non-telephone company users of numbering resources. When BellSouth requested guidance on the availability of N11 codes for local information services, Bellcore said that N11 codes should not be assigned for that use and made no meaningful suggestions regarding alternatives. Later in the N11 proceeding, Bellcore's in-house counsel instructed NANP personnel not to speak to Cox representatives about N11 issues even though Bellcore is the only source of information regarding many numbering questions.^{3/}

Finally, Bellcore has made conflicting assertions regarding the need to use N11 codes for area codes before 1995. In the Commission's N11 proceeding, Bellcore argued that N11 codes could well be needed for that purpose. Comments of Bellcore, CC Docket 92-105 at 6. It took a similar position in responding to BellSouth's inquiry on N11 codes. In industry meetings, however, NANP personnel have taken the position that assigning N11 codes for area codes would be undesirable, and that it would be preferable to assign N00 codes first. In particular, NANP personnel speaking at the July meeting of the IILC and at Telocator's Mobile Communications Marketplace in September stated that use of N00 codes would be preferred, in large part because of

^{3/} When Cox's counsel requested that Bellcore reconsider these instructions, Bellcore's in-house counsel responded that his instructions had been given because of "misunderstandings." No such misunderstandings were cited in his conversation with Cox's counsel, and Bellcore has not suggested that Cox misstated any fact identified as obtained from NANP or other Bellcore personnel. Copies of the correspondence between Cox and Bellcore have been placed in the file in both the N11 proceeding (CC Docket 92-105) and the predecessor docket to this proceeding (DA 92-1307).

high costs associated with accommodating the use of N11 codes for area codes.^{4/}

NANP's public position regarding the undesirability of N11 for area codes was never mentioned in Bellcore's comments and reply comments before the Commission.

Even relatively ministerial tasks, many of which are now conducted by local telephone companies, are subject to bias. A telephone company with its own uses for NXX codes, for example, has an incentive to value its needs higher than those of another party. In addition, landline telephone carriers and their affiliates are likely to have views concerning the allocation of NXX codes and other resources that differ from those of wireless carriers. This has become evident in the consideration of the proposed NXX code assignment guidelines.

These dangers are present whenever numbering resources are allocated, but are exacerbated when resources become relatively scarce. Cellular RSA licensees have discovered that landline carriers are reluctant to release NXX codes, even in the face of legitimate needs such as creating separate local calling areas for two distinct populations within a single RSA.^{5/} Efforts to ration numbering resources occur even while the landline carrier is making state-wide and regional assignments of NXXs for landline uses like uniform access numbers. As scarcity increases, there is increasing

4/ As Cox explained in its Reply Comments in the N11 proceeding, there is little likelihood that N11 codes would be needed for area codes before the advent of interchangeable NPAs in 1995. See Reply Comments of Cox, CC Docket 92-105, at 28-29 (discussing time frames for area codes assignments and availability of N00 codes). The likelihood of running out of area codes has decreased even further since then because on January 1 the telephone industry will have reached the point when interchangeable NPA assignments can begin to be made.

5/ Landline companies resist such allocations even when they have made similar allocations of NXX codes for their own landline services. The anticompetitive effects of these decisions are obvious.

pressure for the carrier to favor its own uses over those of wireless carriers, information services providers and others.

Thus, the continued administration of numbering by Bellcore and local exchange carriers is an invitation to bias and to decisions that fail to consider the needs of all parties with interests in telephone numbering. Because the telecommunications industry represents much more than the interests of the landline carriers, there can be no question that the interests of the entire industry must be considered.

B. Current Approaches to Setting Numbering Policy Stifle the Voices of Non-LEC Parties.

The landline orientation of current NANP administration demonstrably is a major impediment to fair numbering policies. The establishment of numbering policy also creates a bias against non-LEC parties. The Commission must act to ensure that this bias is removed from future NANP administration.

The "consensus process" is an essential feature of current numbering policymaking, presumably because it is supposed to help find agreement on relevant issues among those parties participating in a particular matter. The theory of the consensus process is that all parties have an opportunity to present their views and work towards policies that are acceptable to as many parties as possible.

The practical problem of this approach is that it requires incredible stamina and enormous dedicated resources. For instance, consideration of NXX code assignment guidelines will involve more than half a dozen meetings of up to four days each before they are ready for filing with the Commission. In the end, it easily can be that the parties with the most resources succeed at these forums, not because their ideas or arguments are better, but simply because their resources are greater. The RBOCs

and other large telephone companies typically each send several representatives to those meetings, something that smaller companies cannot afford to do. At the same time, telephone companies generally treat their participation in such forums as regulated expenses, paid for by telephone ratepayers, while non-telephone participants bear the costs of participation without any subsidy. The result is that it is unrealistic to expect that non-telephone views will prevail in "consensus" forums.

Moreover, while the consensus process may offer some opportunity for non-telephone parties to express their views, many decisions are made without such an opportunity. Perhaps most notably, the process for assigning area codes is almost entirely within the control of NANP administration without published guidelines for that process. The entire discussion of NPA assignments is contained in less than a page in Notes on the Network and most of that discussion considers how NPA boundaries should be drawn. There is no discussion concerning when a new NPA should be assigned. See BOC Notes on the LEC Networks - 1990, § 3.2.2 (1990) (describing NPA assignments).^{6/} Moreover, NANP administration has informed Cox that basic information regarding pending NPA requests, including the area where the code would be used, is proprietary.^{7/} In other words, NANP administration makes these decisions

6/ Bellcore did make some documents regarding NPA code assignment available in the NXX code guidelines matter, but those documents specifically were described as not intended for publication.

7/ This statement was made in conversations between Bellcore personnel and counsel for Cox on two separate occasions, June 10 and July 9, 1992. It is unclear why such information should be considered proprietary, since there is little likelihood that a monopoly landline telephone carrier could suffer any competitive harm from disclosure of an NPA request.

entirely on its own with no independent scrutiny and without a meaningful appeal process.

While NPA assignment is the most obvious example, there are many other resources that are assigned without input from other parties. Vertical services codes (also known as *XX codes) apparently are assigned to telephone companies without any opportunity for outside comment. NXX code assignment is essentially a unilateral decision of the assigning local telephone company. Simply put, the ability of non-telephone parties to influence these decisions is so limited as to be almost non-existent.

These structural deficiencies in NANP decision-making require that the process be reformed to ensure that all parties have a fair opportunity to be involved in and informed of decisions. The Commission needs to take an active role to define how this aspect of NANP administration will be accomplished, in order to assure that all parties with interests in numbers are fairly represented.

C. The Commission Should Create a New, Neutral Structure for Administering the NANP.

The solution to the problems described above is obvious: the Commission must remove responsibility for telephone numbering in the United States from Bellcore and the telephone companies and place it under the control of a neutral administrator.^{8/}

^{8/} Of course, many numbering decisions have effects throughout World Zone 1. For that reason, it may be appropriate for the Commission to consult with other governments in World Zone 1 regarding the structure of any new administration. Without concurrence from other governments, the scope of a new administration's power over NXX code assignments and similar matters also may be limited by these concerns to U.S.-related decisions (e.g. the assignment of NXX codes in New Jersey would be within the NANP administration's purview, but not NXX codes in Alberta or Trinidad and Tobago).

At the same time, the Commission must articulate its own basic numbering policies, so that the new administrator will have a foundation on which to build.

Neutral administration is fundamental. It could take the form of a central policy body which hires another entity for ministerial tasks, a consolidated administration which handles both policy and ministerial decisions, or some other structure which preserves the neutrality of the decisionmaking process.

As Cox suggested in its comments on the future of the numbering plan, one model to consider would be a NECA-like body, with representation from all telephone interests, including landline carriers, wireless carriers, CAPs, information services providers and other users. In this model, responsibility for particular decisions could be divided according to the parties that have interests in those matters, with full participation by all parties necessary for broader decisions.^{9/} Most importantly, an NECA-like body would not use the consensus process.

The new administration should have responsibility for both national and local numbering matters. Numbering issues currently are split among a variety of parties, from Bellcore and the local telephone companies to the IILC and the Industry Carriers Compatibility Forum (the "ICCF"). This leads to confusion even within the industry. As documented in the N11 proceeding, Bellcore recently directed one information services provider to bring a proposal before the ICCF, but then told the ICCF that the proposal really should be considered by the IILC. See Filings of The

9/ A copy of Cox's comments on the long term numbering proposal is attached hereto as Exhibit A. Cox notes that, for the reasons discussed in Part II(A), supra, its views on the role of Bellcore in numbering administration have changed since the time it prepared those comments. Bellcore's recent actions, especially in the context of N11, have made it obvious that Bellcore should not continue to play a role in telephone numbering.

Print Group, Inc., CC Docket 92-105. Consolidation of numbering concerns in one forum would prevent such problems.^{10/}

At the same time, the new administration should not have unfettered discretion. The Commission must set basic numbering policies, much as it did for the assignment of NXX codes for the cellular industry. See The Need to Promote Competition and Efficient Use of Spectrum for Radio Common Carrier Services, 2 FCC Rcd 2910 (1987) recon. 4 FCC Rcd 2369 (1989). Fundamental policy questions regarding assigning NPAs for PCS and other new services, use of overlay NPAs, number portability and the basic dialing plan should be decided by the Commission. See Part II, infra. The new numbering administration mostly would implement those Commission policies.

A new structure that follows these principles will solve the basic problems now afflicting numbering policy in the United States, benefiting telecommunications users and service providers alike, and giving all parties a fair opportunity to participate in numbering policy decisions. The Commission should adopt an approach consistent with these principles.

^{10/} The Commission also should consolidate administration of all dialing plan issues within the new structure. As several commenters on Bellcore's future of the numbering plan proposal recognized, numbering and dialing are closely related, and numbering and dialing decisions often affect each other. One notable example is the expansion of Carrier Identification Codes, which is a dialing plan issue that has an effect on the use of 950-XXXX numbering resources. Similarly, the decision to reserve the number "1" for use as a dialing signal reduced the available telephone numbers by about 20 percent.

D. The Costs of Numbering Are Appropriately Recovered from the Parties that Cause the Costs.

Administration of the numbering plan is not without cost. There are costs for assigning numbers, for resolving disputes and for the myriad other tasks involved in assuring that telephone numbers are administered properly. Those costs today often are recovered indirectly, without adequately disclosed mechanisms. The Commission should assure that numbering costs are recovered fully and fairly from the parties causing the costs.

Like other telephone-related costs, recovery of numbering costs should follow the basic principle that the party that causes a cost should bear the cost. This does not mean, for instance, that the last party to receive an NXX from an area code pays the cost of implementing the new area code; rather, all users of numbering resources should bear the costs associated with their use.

Of course, numbering costs already are recovered today. The costs of landline numbers (*i.e.*, conventional telephone and fax numbers) are recovered generally through telephone ratebases. The costs of wireless numbering (*i.e.*, cellular and paging) are recovered through specific charges for NXX codes made by LECs that administer local numbering assignments. These NXX charges are generally reflected in tariffs.

When numbering administration is transferred to a neutral party, the same principle of cost recovery should be followed, with some modification to account for the change in the identity of the administrator. Perhaps the simplest approach is to levy charges on users of numbering resources in accordance with the demands they make on the numbering administrator. Other approaches may work as well, but any system of

cost recovery must not disproportionately affect new service providers simply because they are new. Instead, all cost causers should bear the costs they cause.

II. ISSUES RELATED TO NUMBERING FOR PERSONAL COMMUNICATIONS SERVICES

A. Numbering Policies Must Encourage Local Competition

Cox is among the most active PCS proponents in the United States. Cox's technical tests demonstrate that PCS can be delivered over cable television infrastructure, offering the potential for the introduction of local exchange competition.^{11/} This opportunity is dependent, however, upon the adoption of numbering policies hospitable to the development of local competition.

In its Reply Comments filed in the PCS rulemaking on January 15, 1991, Cox observed that access to numbers could be as significant to the development of PCS as access to spectrum. Cox has participated in several of the domestic forums considering PCS numbering and code assignments. Cox has commented on Bellcore's Long Term Numbering Plan proposal and Bellcore's NXX Code Assignment Guidelines as they impact PCS development.^{12/} Based on its experience, Cox believes the following changes in the current numbering process are necessary to accommodate PCS.

First, as discussed above, there are too many groups with responsibility or oversight for numbering issues.^{13/} Only entities with enormous personnel and financial

^{11/} The Commission recognized the scope and nature of Cox's activity by awarding Cox a tentative pioneer's preference.

^{12/} Copies of Cox's letters to Bellcore are attached as Exhibits A and B.

^{13/} Among these groups are Bellcore, the IILC, the ICCF, the Exchange Carriers Standards Association and Committee T-1.

resources can monitor and participate in so many groups. It is even more troubling that participation either by written submission or by attendance at meetings cannot be reasonably expected to have any real impact on the determinations of these groups. For the same reasons that Bellcore should not continue to set numbering policies for other services, it is critical that Bellcore not continue in its present position of determining to whom and how numbers should be assigned.

PCS presents a real opportunity to offer customers additional service providers. Continued application of outmoded forms of thinking about numbering will stifle progress towards local exchange competition. As the Commission has recognized in similar contexts, PCS cannot become a competitive service if number portability is not a basic requirement. In 800 services, for example, the Commission identified 800 number portability as the sine qua non of a competitive 800 service market.^{14/} It is critical that the Commission provide the policy leadership to establish number portability as an essential PCS numbering requirement.

In addition to number portability, PCS providers cannot hope to offer a competitive service without access to numbering databases to enable them to route calls originated on their systems to other carriers, as appropriate, for termination. Local exchange carriers currently maintain numbering databases within their SS7 networks. PCS numbering policy must look beyond the assignment of numbers to assure that every service provider has equal access to LEC numbering databases.

^{14/} See Competition in the Interexchange Marketplace, 5 FCC Rcd 2627, 2641 (1990), Report and Order, 6 FCC Rcd 5880, 5903 (1991), recon. 7 FCC Rcd 2677, 2681 (1992). At the same time the Commission should review how to implement portability to avoid the pitfalls and delays that have accompanied the development of 800 number portability.

B. The Commission Should Not Merely Extend Cellular Precedents to PCS.

Under the current numbering administration, numbers are assigned to cellular and paging carriers by the LECs that administer the assignment of codes within their landline telephone territories. As paging and cellular carriers seek to implement services in a manner that benefit the carrier and its customers they often have been severely disadvantaged because the elements necessary for their business success are granted or withheld at the sufferance of their landline telephone company competitor. Since the telephone company can refuse to assign numbers, cellular and paging carriers have been constrained in their efforts to provide extended local area calling and other services.^{15/}

The Commission cannot afford to leave PCS numbering assignment decisions to entrenched landline telephone interests which will continue to assign numbers in ways that suit their own interest without accountability or oversight. Such a regime would invite the continuation of the ad hoc administration that has constrained cellular and paging carriers. Principles and procedures of equitable numbering assignment must be established by the Commission at the outset for PCS.

C. PCS Providers Must Have Access to Both Geographic and Non-Geographic Codes.

There is discussion underway in industry forums and in Bellcore draft numbering documents regarding introduction of non-geographic numbering for PCS and other mobile services. While Cox believes that non-geographic codes will prove to be of

^{15/} It is no answer to note that a carrier denied access to NXX codes can file a formal complaint. The complaint process is an adjudicative proceeding, inherently not well suited to formulating policies with industry-wide application and also is expensive and time consuming.

significant value to highly mobile users, Cox believes that PCS providers also will need geographic numbers. There may be forms of PCS that are best suited to use of a geographically-based number. Since those uses presently are unpredictable, Commission policy must be sufficiently flexible to provide PCS operators guaranteed access to both geographic and non-geographic numbers to serve its customers.

D. Availability of PCS Numbers

Finally, the Commission has an important role in assuring that geographic and non-geographic numbers are available to PCS providers at the time licenses are awarded for PCS. Bellcore has excluded PCS numbering from its formulation of NXX code assignment guidelines. This exclusion raises the possibility that Bellcore and various industry forums may not have completed PCS numbering guidelines by the time PCS licenses are awarded or may use the exclusion of PCS from the guidelines as a reason to deny numbers to PCS providers. The Commission must do everything possible, including setting deadlines for the resolution of PCS numbering assignment issues, to assure that numbers are readily available to PCS providers when they are ready to provide service.

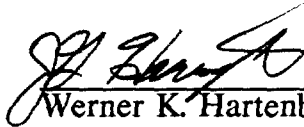
III. CONCLUSION

This proceeding gives the Commission an opportunity to assure that numbering policy is designed to benefit not just one segment of the telephone industry, but all consumers of telephone numbering resources. For that to happen, the Commission must reform the structure of numbering administration and open up numbering policy to all interested parties. At the same time, the Commission must take steps to assure that PCS numbering policy encourages competition and the prompt

provision of a wide range of PCS offerings that will meet the needs of consumers. Cox urges the Commission to take the steps outlined in these comments as a way to achieve those goals.

Respectfully submitted,

COX ENTERPRISES, INC.

A handwritten signature in dark ink, appearing to read 'W. Hartenberger', is written over a horizontal line.

Werner K. Hartenberger

J.G. Harrington

Laura H. Phillips

Its Attorneys

DOW, LOHNES & ALBERTSON
1255 23rd Street Suite 500
Washington, D.C. 20037
(202) 857-2500

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EXHIBIT A

Cox Comments on the Future of the Numbering Plan

DOW, LOHNES & ALBERTSON

1255 TWENTY-THIRD STREET

WASHINGTON, D.C. 20037

TELEPHONE (202) 857-2500

April 30, 1992

VIA FEDERAL EXPRESS

Mr. Fred Gaechter
NANP Administration
Bellcore - Room 1B234
290 West Mt. Pleasant Avenue
Livingston, New Jersey 07039

Re: North American Numbering Plan Administrator's Proposal
on the Future of Numbering in World Zone 1
Comments of Cox Enterprises, Inc.

Dear Mr. Gaechter:

On behalf of our client, Cox Enterprises, Inc. ("Cox"), we hereby submit Cox's comments on the North American Numbering Plan Administrator's Proposal on the Future of Numbering in World Zone 1 (the "Proposal"), issued by Bellcore on January 2, 1992.^{1/} Cox believes it is vital for the numbering plan to account for the needs of all users of numbering resources and expects that consideration of the Proposal will be the first in a series of deliberations intended to reshape telephone numbering to bring the maximum benefit to the public.

Cox's responses to the Proposal fall into three main areas: (1) The allocation of NPA codes; (2) The evolution of numbering; and (3) Administration of the NANP. While the Proposal has many valuable elements, changes should be made in each of these areas to make future allocation of numbering resources as responsive as possible to user needs. To meet these needs, additional flexibility must be added to the Proposal and resource allocation decisions must be made by and for the benefit of all affected parties. The changes to the Proposal outlined in these comments are intended to further those goals.

1/ Cox is a diversified company with interests in newspapers, broadcast outlets and cable television systems. Cox is involved in personal communication services experimentation and the nation's first PCS call through cable TV distribution facilities was made from Cox's San Diego, California system to FCC Chairman Sikes in Washington, D.C. Cox also provides information services via the telephone network.

Allocation of NPA Codes

The Proposal allocates the 640 new NPAs made available through interchangeability into five categories: 300 codes for land-based uses; 80 codes for PCS; 10 Service Access Codes ("SACs"); 80 codes set aside for numbering expansion; and 170 codes held in reserve for unanticipated uses.^{2/} The Proposal suggests that some codes allocated to PCS should be set aside for 10-digit database routing and others for CO-code based routing.

This proposed allocation is too rigid, and there is no evidence it is designed to meet the needs of the telecommunications industry and users. In particular, too many codes are set aside for landline use, too few are set aside for the reserve and the assignment of new codes to SACs is premature.

Landline Codes

There are too many codes set aside for landline use. The number of codes for landline use at the outset of the study period should be reduced from 300 to 120. While there is little question that landline usage has been growing rapidly, setting aside nearly half of the new codes for landline uses is excessive.

First, 300 codes is more than five times the number of new codes assigned since the numbering plan went into effect more than forty years ago. At the same time, some of the expected changes in numbering usage, including personal numbers, overlay codes, and number portability, may have the effect of reducing the need for new landline codes.^{3/} Efficiency of the use of landline codes also may increase through initiatives like Bell Atlantic's recently-announced offering that treats cellular phones like extensions on a PBX. It is significant that Bellcore efforts were unable "to render a statistically acceptable prediction," Proposal at 13, of the number of landline codes that will be needed.

2/ The Proposal groups PCS codes and new SACs under a "non-geographic" category. Given the distinct purposes of each of these uses, these comments treat PCS codes and SACs separately.

3/ The Proposal suggests that personal numbering will lead to increased number usage. While this may be a short term effect of personal numbering, there are reasons to believe that personal numbering will actually decrease number usage in the long run as users consolidate two or more numbers to a single personal number. It also is possible that some current uses of landline codes, e.g. cellular, may shift to PCS codes.

Reducing the number of codes set aside for landline use will have significant benefits. Most notably, the codes freed by reducing the landline allocation can be added to the reserve, preserving flexibility to meet future needs. As the telephone environment changes there may be additional needs to set aside codes for unanticipated services.^{4/} A larger reserve also will make it easier to respond to unexpected growth in non-geographic services. Given the effect of cellular phones and paging on number usage over the last decade, it is not unreasonable to expect that PCS may have similarly explosive growth.

Even a reduced allocation of 120 codes is likely to last for many years. It would be more than twice as many codes as have been added in the last forty years. Moreover, if the allocation began to run out, the code reserve also would be available to fill the gap. Thus, it would be appropriate to reduce the allocation of new NPAs to landline uses.^{5/}

PCS Codes

The Proposal's allocation of 80 codes for PCS is probably a good initial allocation, but efforts should be made to avoid rigidity in code assignment. In particular, the proposed division of PCS codes into separate categories depending on how they are routed should not be adopted at this time.

The Proposal bases its PCS allocation on preliminary industry subscribership estimates and on the potential advantages of using recognizable codes for PCS. Proposal at 14. There is some uncertainty about the number of codes that will be needed, but it is possible that an 80 code allocation will be insufficient for the medium term.^{6/}

The proposal to divide these PCS codes into specific, routing-based categories at this time is, however, premature. PCS architecture is not defined well enough to assign codes to these categories. Moreover, PCS routing, as the Proposal notes, is likely to evolve to its final state, with individual carriers reaching the various

4/ For instance, satellite-based services may require numbers and it is possible some NANP resources will be used in this way. The Proposal does not consider satellite services.

5/ Moreover, there is no evidence in the Proposal that landline carriers are using their existing numbering resources efficiently. This is a matter that NANP administration should investigate.

6/ Cox recognizes that the accuracy of any assumption about the needs for PCS NPAs may depend in part on how the FCC defines the services areas of PCS licensees.

stages in this evolution at different times. Since carriers may choose to share NPAs, categorization of NPAs based on how their calls are routed is likely to be counterproductive.

In any event, current NANP administration is not well suited to make these decisions. The best parties to decide how to assign PCS NPAs will be the PCS operators. They will have the greatest stake in making PCS succeed and the greatest understanding of how PCS will work. As described below, procedures to give PCS operators and other numbering stakeholders more direct involvement in decisions affecting them should be adopted as part of this proceeding.

Service Access Codes

The proposed reservation for service access codes also should be modified, or perhaps even discarded. There is no indication of any need for additional SACs at this time. If some SACs are added, they should not include N11 codes, which already are reserved for other uses.

The Proposal does not describe any need to assign ten new SACs. The only explanation for this assignment is that NANP administration believes that there are at least ten easily recognizable numbers available. No market projection supports the assignment and, in fact, five of the existing eight SACs remain unassigned. If some new codes are assigned to be SACs, the number should be limited, perhaps to five numbers. This would double the available stock of SACs, which likely would be sufficient for many years.

If any new SACs are assigned, the N11 codes should not be among them. The Proposal suggests using N11 codes because NANP administration believes it is unlikely that vacant local N11 numbers will be used for nationwide three digit dialing. Proposal at 14. This may be true, but it is irrelevant. In fact, there are significant reasons to retain the current reservation of N11 codes for local use.

First, in light of the availability of many other memorable numbers, there is little reason to disturb the existing reservation of these codes to local use. Numbers like 222 and 345 are as memorable as 511 or 711, and those numbers are available for assignment as SACs. N11 codes, on the other hand, have a unique functionality for local abbreviated dialing and other numbers cannot be used in this way under the current network design.

Moreover, by virtue of their local reservation, N11 codes are not included as NPAs under either the current regime or under interchangeable NPAs. Under interchangeable NPAs, there will be 792 codes available, with 152 from the existing

system and 640 new codes available from interchangeability. N11 codes were specifically excluded from the original NPAs and are not part of the additional 640 codes.⁷

Code Reserve

Cox supports a code reserve. As recent events have shown, it is difficult to predict needs over a thirty year span and a code reserve will allow the NANP to adapt to changes in the telephone environment. As described above, the Proposal's allocation of 170 codes to the reserve should, in fact, be expanded to increase flexibility to deal with these changes.

A total of at least 185 codes should be added to the reserve, with 180 codes coming from the proposed allocation to landline uses and at least five codes coming from the proposed SAC allocation. The result will be a reserve that contains more than 350 codes. This will leave sufficient codes to allow landline-related uses, PCS and SACs to grow, while creating flexibility to respond to unexpected growths in these areas and to new services.

This reserve will account for somewhat more than one-half the codes made available by the adoption of interchangeable NPAs. This approach is consistent with the original NANP, which left 68 of the original 152 NPAs, or 43%, available for future assignments. It also allocates more than 280 codes, or nearly twice as many codes as will have been assigned by the time interchangeable NPAs go into effect. It is true that many codes will be left unallocated, but there simply is no reason to rush to allocate codes until the future needs of the telecommunications networks and users are known, something that may not be possible until the 21st century.

Other Issues

Two other issues relating to allocation of NPA codes require comment. First, the Proposal notes that NANP administration is in the process of developing assignment guidelines for NPAs. Any guidelines proposed by NANP administration should be consistent with the principle that NPA assignment and allocation should, to the extent possible, be controlled by all users of numbering resources, especially including the non-landline industry segments that have been excluded from this process in the past. In addition, any guidelines should provide for dispute resolution by a neutral arbiter. See NANP Governance, *infra*.

⁷/ While Cox opposes the assignment of N11 codes as SACs as unnecessary, contrary to current practice and unsupported by need, it should be noted that use of N11 codes as SACs does not preclude continued local use of N11 codes, just as the use of a number as an interchangeable NPA area code will not preclude use of the number as a central office code.